

# NHDOT SPR2 PROGRAM

## RESEARCH PROGRESS REPORT

<b>Project #</b> SPR 42372H		<b>Report Period</b> Year 2021 <input type="checkbox"/> Q1 (Jan-Mar) <input type="checkbox"/> Q2 (Apr-Jun) <input checked="" type="checkbox"/> Q3 (Jul-Sep) <input type="checkbox"/> Q4 (Oct-Dec)	
<b>Project Title:</b> Water Quality Test Site and Public Outreach at the I-89 Sutton Rest Area			
<b>Project Investigator:</b> Tom Ballestero <b>Phone:</b> 603.862.1405		<b>E-mail:</b> <a href="mailto:tom.ballestero@unh.edu">tom.ballestero@unh.edu</a>	
<b>Project Start Date:</b> 5/5/2021	<b>Project End Date:</b> 1/31/2024	<b>Project schedule status:</b> <input checked="" type="checkbox"/> On schedule <input type="checkbox"/> Ahead of schedule <input type="checkbox"/> Behind schedule	

**Brief Project Description:**

NHDOT has been and will continue to construct water quality best management practices to meet stormwater runoff quality regulations. The size of the measures required often extend beyond the available right-of-way (ROW) and require the acquisition of private property. These measures also require maintenance to remain effective. NHDOT would benefit from solutions that require less space, that can be constructed in our linear ROWs, and be very low or zero maintenance. The current construction project, Sutton 42419, will explore the design, construction, efficiency, and monitoring of smaller, linear water quality measures that will require very little to no maintenance.

Another potential component to this project is public outreach. Due to the location of this test site there is an opportunity to share this research with the public who stop to use the rest area. This outreach may help the public understand the reason NHDOT constructs these features along the highways and may influence others to think about storm runoff and the impact it can have on the environment.

**Progress this Quarter (include meetings, installations, equipment purchases, significant progress, etc.):**

Design of the green stormwater systems through various iterations with the NHDOT design team has been performed. In addition, six storm/runoff events were collected with the programmable samplers as well as many grab samples. In situ, real time probes for temperature and conductivity continue to log water quality.

**Items needed from NHDOT (i.e., Concurrence, Sub-contract, Assignments, Samples, Testing, etc...):**

Nothing at this time. When construction is scheduled, we need to be apprised in order to remove monitoring equipment.

**Anticipated research next three(3) months:**

Continue site monitoring, water analyses, data reduction/synthesis, and assistance with system designs.

**Circumstances affecting project:**

Nothing outstanding at this time. Construction will affect monitoring, as anticipated.

Tasks (from Work Plan)	Planned % Complete	Actual % Complete
Task 1 Set-up Pre-construction Monitoring equipment and sample	85	85
Task 2 Provide design details for stormwater systems	80	80
Task 3 Set-up Post-construction Monitoring equipment and sample	0	0
Task 4 Assist with development of public outreach materials	0	0
Task 5 TAG Meetings and Quarterly Reports	14	14
Task 6 Final Report	0	0

**Barriers or constraints to implementing research results:**

Nothing to report at this time.